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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,390	12/23/2003	Masahiko Matsukawa	21581-00311-US	7919
30678	7590	01/06/2006	EXAMINER	
CONNOLLY BOVE LODGE & HUTZ LLP SUITE 800 1990 M STREET NW WASHINGTON, DC 20036-3425				CAMERON, ERMA C
ART UNIT		PAPER NUMBER		
		1762		

DATE MAILED: 01/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/743,390	MATSUKAWA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Erma Cameron	1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 29 November 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,4-6,11,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,11,14 and 15 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 and 6 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                         |                                                                             |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.                                               |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|                                                                                                                         | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's arguments filed 11/29/2005 have been fully considered but they are not fully persuasive.

### ***Election/Restrictions***

2. Applicant's election of claims 1 and 6 in the reply filed on 11/29/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 4-5, 11 and 14-15 are acknowledged by the applicant to be drawn to non-elected species. Nevertheless, the applicant has given these claims the status identifier of "previously presented" or "currently amended". These claims should have "withdrawn" as the status identifier.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 1, line 8: surface to be treated is confusing, because it is not clear if the treatment with the chemical conversion coating agent is the treatment that is referred to, or if the treatment is something different from the conversion coating treatment. In addition, there is no antecedent basis for this term.

b) Claim 1: it is not clear what “atom ratio basis” means. Is this simply the number of fluorine atoms in the coating divided by a count of all atoms in the coating? Would the atom count also include the atoms in the solvent? In the 11/29/2005 amendment, the applicant states on page 11 that the “atom ratio basis refers to the entire coating which would include the solvent”. However, claim 1 claims the atom ratio basis in terms of the “chemical conversion coat”. Presumably, this means a dried coating, and therefore the definition of “atom ratio” is still not clear.

c) Claim 1, definition of (ii): “mixture of a polyisocyanate compound and a melamine resin and mixtures thereof” does not make sense.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

a) atom ratio basis: 3:25-29, 5:28-31, 8:28-9:7 and elsewhere. It is not clear what "atom ratio basis" means.

In the 11/29/2005 amendment, the applicant states on page 11 that the "atom ratio basis refers to the entire coating which would include the solvent". However, claim 1 claims the atom ratio basis in terms of the "chemical conversion coat". Presumably, this means a dried coating, and therefore the definition of "atom ratio" is still not clear.

b) ppm 4:16-19, 7:19-29 and elsewhere. The applicant has stated in the 11/29/2005 amendment that "ppm refers to only the zirconium, titanium and hafnium atoms", but this is not supported in the specification as filed, and therefore the definition of ppm is still not clear.

7. Claims 1 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The following are new matter, that are not supported in the specification as filed:

- a) Claim 1: “a water-borne resin, and at least one member selected from the group consisting of a mixture of a polyisocyanate compound and a melamine resin and mixtures thereof (ii)” .
- b) Claim 6: “in terms of total atoms of zirconium, titanium and hafnium”.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. The rejection of Claim 1 under 35 U.S.C. 102(b) as being clearly anticipated by Tomlinson et al (5759244), is withdrawn because of the amendment filed 11/29/2005.

10. The rejection of Claims 1-3 under 35 U.S.C. 102(b) as being clearly anticipated by Tomlinson (5380374), is withdrawn because of the amendment filed 11/29/2005.

11. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Dolan (5427632).

‘632 teaches a conversion coating for steel and other metals that comprises F, one of Ti, Zr or Hf, one of Mg, Zn or Cu, and a water soluble melamine resin or other resin (see Abstract, 5:35-50). The presence of Mg, Zn or Cu inherently reduces the F level, thus meeting the limitation of <10% F on an atom ratio basis.

The applicant has argued that ‘632 employs as component c) a phosphorous containing inorganic oxyanion. However, claim 1 specifically claims “no phosphate ions”. ‘632 uses as component c), besides phosphates, phosphites and phosphonates (5:23-34), and prefers phosphonates. Therefore, ‘632 meets the limitations of “no phosphate ions”.

12. Claims 1and 6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hauser et al (6312812).

‘812 teaches treating ferrous and nonferrous metals with a composition that may combine a first pretreatment and second pretreatment (see Abstract) that comprises Zr, Ti or Hf (4:53-60)

at preferably 100-1000 ppm metal (5:17-34), F (5:4-16, claim 26), resins such as an aminoplast or polyisocyanate (5:35-6:11), and may contain a silicon-containing cpd (claim 27) or zinc (claim 30). The presence of silicon or zinc inherently reduces the F level. The pH is preferably 3-5 (5:17-34).

The applicant has argued in the 11/29/2005 amendment that 2 steps are used to apply the coating. However, the 2 steps can be combined into a single pretreatment (see Abstract), thereby meeting the limitations of amended claim 1.

In addition, '812 is not required to employ phosphorus atoms in the pretreatment, and where phosphorus containing materials are used, they may be in the form of ions other than phosphate, such as phosphite or phosphonite (8:43-49).

#### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The rejection of Claim 6 under 35 U.S.C. 103(a) as being unpatentable over Tomlinson et al (5759244) is withdrawn because of the amendment filed 11/29/2005.

15. The rejection of Claims 6 and 12-13 under 35 U.S.C. 103(a) as being unpatentable over Tomlinson (5380374), is withdrawn because of the amendment filed 11/29/2005.

16. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dolan et al (5427632).

‘632 is applied here for the reasons given above.

The pH is 0.5 to 5.0 (see Abstract; 2:47-51) which overlaps applicant’s claimed pH range.

‘632 does not disclose the Zr/Ti/Hf content in terms of ppm, and therefore a direct comparison with applicant’s claimed ppm range is difficult, but ‘632 appears to meet the ppm limitations of claims 6.

### ***Double Patenting***

17. The rejection of Claims 2 and 12 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, 5 and 11 of copending Application No. 10/743387, is withdrawn because of the amendment filed 11/29/2005.

18. The rejection of Claims 1-3, 6 and 12-13 are provisionally rejected under 35 U.S.C. 103(a) as being obvious over copending Application No. 10/743387 which has a common inventor and assignee with the instant application, is withdrawn because of applicant's statement in the 11/29/2005 amendment that the invention was not "by another".

*Specification*

19. The objection to the disclosure is withdrawn because of the amendment filed 11/29/2005.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erma Cameron whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Erma Cameron*  
**ERMA CAMERON**  
**PRIMARY EXAMINER**

Erma Cameron  
Primary Examiner  
Art Unit 1762

January 3, 2006